

# PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference  
(if desired) (12 characters maximum) LP2012PC00

### Box No. I TITLE OF INVENTION

Process for the asymmetric hydrogenation of beta-amino ketones

### Box No. II APPLICANT

☐ This person is also inventor

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

LONZA AG  
Münchensteinerstrasse 38  
CH-4052 Basel  
CH

Telephone No.

Facsimile No.

Teleprinter No.

Applicant's registration No. with the Office

State (that is, country) of nationality:

CH

State (that is, country) of residence:

CH

This person is applicant for the purposes of:

☐ all designated States

☒ all designated States except the United States of America

☐ the United States of America only

☐ the States indicated in the Supplemental Box

### Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

METTLER, Hans-Peter  
Finkenweg 12  
CH-3930 Visp  
CH

This person is:

☐ applicant only

☒ applicant and inventor

☐ inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

CH

State (that is, country) of residence:

CH

This person is applicant for the purposes of:

☐ all designated States

☐ all designated States except the United States of America

☒ the United States of America only

☐ the States indicated in the Supplemental Box

☐ Further applicants and/or (further) inventors are indicated on a continuation sheet.

### Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

☐ agent

☒ common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

LONZA AG  
Münchensteinerstrasse 38  
CH-4052 Basel  
CH

Telephone No.

+41 61 316 8433

Facsimile No.

+41 61 316 8329

Teleprinter No.

Agent's registration No. with the Office

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

<b>Box No. V DESIGNATIONS</b>										
<p>The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.</p> <p>However,</p> <p><input type="checkbox"/> DE Germany is not designated for any kind of national protection</p> <p><input type="checkbox"/> KR Republic of Korea is not designated for any kind of national protection</p> <p><input type="checkbox"/> RU Russian Federation is not designated for any kind of national protection</p> <p><i>(The check-boxes above may be used to exclude (irrevocably) the designations concerned in order to avoid the ceasing of the effect, under the national law, of an earlier national application from which priority is claimed. See the Notes to Box No. V as to the consequences of such national law provisions in these and certain other States.)</i></p>										
<b>Box No. VI PRIORITY CLAIM</b>										
The priority of the following earlier application(s) is hereby claimed:										
Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:								
		national application: country or Member of WTO	regional application:* regional Office	international application: receiving Office						
item (1) 1 September 2003 (01/09/2003)	03077734.6		EP							
item (2)										
item (3)										
<input type="checkbox"/> Further priority claims are indicated in the Supplemental Box.										
<p>The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) <i>(only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office)</i> identified above as:</p> <p> <input type="checkbox"/> all items               <input checked="" type="checkbox"/> item (1)               <input type="checkbox"/> item (2)               <input type="checkbox"/> item (3)               <input type="checkbox"/> other, see Supplemental Box         </p> <p><i>* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)): . . . .</i></p>										
<b>Box No. VII INTERNATIONAL SEARCHING AUTHORITY</b>										
<p><b>Choice of International Searching Authority (ISA)</b> (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):</p> <p>ISA / . . . . .</p> <p><b>Request to use results of earlier search; reference to that search</b> (if an earlier search has been carried out by or requested from the International Searching Authority):</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Date (day/month/year)</td> <td style="width: 30%;">Number</td> <td style="width: 30%;">Country (or regional Office)</td> </tr> <tr> <td>05/02/2004</td> <td>EP 03 07 7734</td> <td>European Patent Office</td> </tr> </table>					Date (day/month/year)	Number	Country (or regional Office)	05/02/2004	EP 03 07 7734	European Patent Office
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05/02/2004	EP 03 07 7734	European Patent Office								
<b>Box No. VIII DECLARATIONS</b>										
<p>The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):</p>				Number of declarations						
<input type="checkbox"/> Box No. VIII (i)	Declaration as to the identity of the inventor	:								
<input checked="" type="checkbox"/> Box No. VIII (ii)	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	:	1							
<input type="checkbox"/> Box No. VIII (iii)	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	:								
<input checked="" type="checkbox"/> Box No. VIII (iv)	Declaration of inventorship (only for the purposes of the designation of the United States of America)	:	1							
<input type="checkbox"/> Box No. VIII (v)	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	:								

**Box No. VIII (ii) DECLARATION: ENTITLEMENT TO APPLY FOR AND BE GRANTED A PATENT**

*The declaration must conform to the standardized wording provided for in Section 212; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (ii). If this Box is not used, this sheet should not be included in the request.*

Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:

In relation to this international application,  
LONZA AG is entitled to apply for and be granted a patent by  
virtue of the following:

LONZA AG is entitled as employer of the inventor, METTLER, Hans-Peter.

This declaration is made for the purposes of all designations except the designation of the  
United States of America.

☐ This declaration is continued on the following sheet, "Continuation of Box No. VIII (ii)".

**Box No. VIII (iv) DECLARATION: INVENTORSHIP** (only for the purposes of the designation of the United States of America)  
*The declaration must conform to the following standardized wording provided for in Section 214; see Notes to Boxes Nos. VIII, VIII (i) to (iv) (in general) and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should not be included in the request.*

**Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv))  
for the purposes of the designation of the United States of America:**

I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.

This declaration is directed to the international application of which it forms a part (if filing declaration with application).

This declaration is directed to international application No. PCT/..... (if furnishing declaration pursuant to Rule 26ter).

I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.

I hereby state that I have reviewed and understand the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications," by application number, country or Member of the World Trade Organization, day, month and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.

Prior Applications: .....

I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.

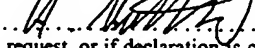
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name: METTLER, Hans-Peter

Residence: Visp, Switzerland (CH)  
(city and either US state, if applicable, or country)

Mailing Address: Finkenweg 12; CH-3930 Visp, Switzerland (CH)

Citizenship: Switzerland (CH)

Inventor's Signature:   
(if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: Aug. 30 - 2024  
(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)

Name: .....

Residence: .....  
(city and either US state, if applicable, or country)


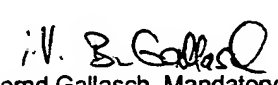
Mailing Address: .....

Citizenship: .....

Inventor's Signature: .....  
(if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: .....  
(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)

☐ This declaration is continued on the following sheet, "Continuation of Box No. VIII (iv)".

Box No. IX CHECK LIST; LANGUAGE OF FILING																																																								
<p>This international application contains:</p> <p>(a) in paper form, the following number of sheets:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding: 2px;">request (including declaration sheets) :</td> <td style="text-align: right; padding: 2px;">5</td> </tr> <tr> <td style="padding: 2px;">description (excluding sequence listing and/or tables related thereto) :</td> <td style="text-align: right; padding: 2px;">12</td> </tr> <tr> <td style="padding: 2px;">claims :</td> <td style="text-align: right; padding: 2px;">3</td> </tr> <tr> <td style="padding: 2px;">abstract :</td> <td style="text-align: right; padding: 2px;">1</td> </tr> <tr> <td style="padding: 2px;">drawings :</td> <td style="border-bottom: 1px solid black; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">Sub-total number of sheets :</td> <td style="text-align: right; padding: 2px;">21</td> </tr> <tr> <td style="padding: 2px;">sequence listing :</td> <td style="border-bottom: 1px solid black; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">tables related thereto :</td> <td style="border-bottom: 1px solid black; padding: 2px;"></td> </tr> <tr> <td colspan="2" style="padding: 2px;"><i>(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (c) below)</i></td> </tr> <tr> <td style="padding: 2px;">Total number of sheets :</td> <td style="text-align: right; padding: 2px;">21</td> </tr> </table> <p>(b) <input type="checkbox"/> only in computer readable form (Section 801(a)(i))</p> <p style="padding-left: 20px;">(i) <input type="checkbox"/> sequence listing</p> <p style="padding-left: 20px;">(ii) <input type="checkbox"/> tables related thereto</p> <p>(c) <input type="checkbox"/> also in computer readable form (Section 801(a)(ii))</p> <p style="padding-left: 20px;">(i) <input type="checkbox"/> sequence listing</p> <p style="padding-left: 20px;">(ii) <input type="checkbox"/> tables related thereto</p> <p>Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the</p> <p style="padding-left: 20px;"><input type="checkbox"/> sequence listing: .....</p> <p style="padding-left: 20px;"><input type="checkbox"/> tables related thereto: .....</p> <p style="padding-left: 20px;"><i>(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)</i></p>	request (including declaration sheets) :	5	description (excluding sequence listing and/or tables related thereto) :	12	claims :	3	abstract :	1	drawings :		Sub-total number of sheets :	21	sequence listing :		tables related thereto :		<i>(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (c) below)</i>		Total number of sheets :	21	<p>This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):</p> <table style="width: 100%; border: none;"> <tr><td style="padding: 2px;">1. <input checked="" type="checkbox"/> fee calculation sheet</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">2. <input type="checkbox"/> original separate power of attorney</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">3. <input type="checkbox"/> original general power of attorney</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: .....</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">5. <input type="checkbox"/> statement explaining lack of signature</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): .....</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">7. <input type="checkbox"/> translation of international application into (language): .....</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">8. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">9. <input type="checkbox"/> sequence listing in computer readable form (indicate type and number of carriers)</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">    (i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) :</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">    (ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">    (iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing mentioned in left column</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">10. <input type="checkbox"/> tables in computer readable form related to sequence listing (indicate type and number of carriers)</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">    (i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application)</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">    (ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater)</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">    (iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column</td><td style="text-align: right; padding: 2px;">:</td></tr> <tr><td style="padding: 2px;">11. <input type="checkbox"/> other (specify): .....</td><td style="text-align: right; padding: 2px;">:</td></tr> </table>	1. <input checked="" type="checkbox"/> fee calculation sheet	:	2. <input type="checkbox"/> original separate power of attorney	:	3. <input type="checkbox"/> original general power of attorney	:	4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: .....	:	5. <input type="checkbox"/> statement explaining lack of signature	:	6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): .....	:	7. <input type="checkbox"/> translation of international application into (language): .....	:	8. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material	:	9. <input type="checkbox"/> sequence listing in computer readable form (indicate type and number of carriers)	:	(i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) :	:	(ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter	:	(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing mentioned in left column	:	10. <input type="checkbox"/> tables in computer readable form related to sequence listing (indicate type and number of carriers)	:	(i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quater) only (and not as part of the international application)	:	(ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quater)	:	(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column	:	11. <input type="checkbox"/> other (specify): .....	:	<p>Number of items</p>
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Figure of the drawings which should accompany the abstract: none	Language of filing of the international application: English																																																							
<p><b>Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE</b></p> <p><i>Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).</i></p>																																																								
LONZA AG																																																								
 Dr. Norbert Riegler, Manager Patents	 Dr. Bernd Gallasch, Mandatory																																																							

For receiving Office use only	
1. Date of actual receipt of the purported international application:	2. Drawings: <input type="checkbox"/> received:  <input type="checkbox"/> not received:
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	
4. Date of timely receipt of the required corrections under PCT Article 11(2):	
5. International Searching Authority (if two or more are competent): ISA /	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid

For International Bureau use only
Date of receipt of the record copy by the International Bureau:

This sheet is not part of and does not count as a sheet of the international application.

PCT

FEE CALCULATION SHEET

Annex to the Request

For receiving Office use only

International Application No.

Applicant's or agent's  
file reference

LP2012PC00

Date stamp of the receiving Office

Applicant

LONZA AG et al.

CALCULATION OF PRESCRIBED FEES

1. TRANSMITTAL FEE . . . . . 100.00 € T

2. SEARCH FEE . . . . . 1,550.00 € S

International search to be carried out by

(If two or more International Searching Authorities are competent to carry out the international search, indicate the name of the Authority which is chosen to carry out the international search.)

3. INTERNATIONAL FILING FEE

Where items (b) and/or (c) of Box No. IX apply, enter Sub-total number of sheets } 21  
Where items (b) and (c) of Box No. IX do not apply, enter Total number of sheets }

i1 first 30 sheets . . . . . 902.00 € i1

i2 \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_ i2  
number of sheets fee per sheet  
in excess of 30

i3 additional component (only if sequence listing and/or tables related thereto are filed in computer readable form under Section 801(a)(i), or both in that form and on paper, under Section 801(a)(ii)):

400 x \_\_\_\_\_ = \_\_\_\_\_ i3  
fee per sheet

Add amounts entered at i1, i2 and i3 and enter total at I . . . . . 902.00 € I

(Applicants from certain States are entitled to a reduction of 75% of the international filing fee. Where the applicant is (or all applicants are) so entitled, the total to be entered at I is 25% of the international filing fee.)

4. FEE FOR PRIORITY DOCUMENT (if applicable) . . . . . 30.00 € P

5. TOTAL FEES PAYABLE . . . . . 2,582.00 €

Add amounts entered at T, S, I and P, and enter total in the TOTAL box

TOTAL

MODE OF PAYMENT

☒ authorization to charge  
deposit account (see below)

☐ postal money order

☐ cash

☐ coupons

☐ cheque

☐ bank draft

☐ revenue stamps

☐ other (specify):

AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT

(This mode of payment may not be available at all receiving Offices)

☒ Authorization to charge the total fees indicated above.

☒ (This check-box may be marked only if the conditions for deposit accounts of the receiving Office so permit) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.

☒ Authorization to charge the fee for priority document.

Receiving Office: RO/ EP

Deposit Account No.: 28110201

Date: 31 August 2004 (31/08/2004)

Name: LONZA AG

Signature: *[Signature]*

*[Signature]*  
Dr. Bernd Salasch